AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of the Claims

1. (Currently Amended) A ~~DNA vaccine~~ plasmid mixture comprising:

a first plasmid ~~consisting essentially of~~ containing a DNA fragment encoding a structural protein composed of core, E1 and E2 proteins of hepatitis C virus, in which 35-40 amino acids are eliminated from the N-terminal region of the original core protein;

a second plasmid ~~consisting essentially of~~ containing a DNA fragment encoding a non-structural protein of hepatitis of hepatitis C virus composed of NS3 and NS4 of hepatitis C virus; and

a third plasmid containing ~~consisting essentially of~~ a DNA fragment encoding NS5 of hepatitis C virus,

wherein the size of the DNA fragments contained in the first, second and third plasmids ranges from 2 to 6 kb.

2. (Currently Amended) The ~~DNA vaccine~~ plasmid mixture as set forth in claim 1, wherein the size of the DNA fragments contained in the first, second and third plasmids ranges from 2 to 4 kb.

3. (Canceled)

4. (Canceled)

5. (Currently Amended) The ~~DNA vaccine~~ plasmid mixture as set forth in claim 1, wherein the first plasmid contains a DNA fragment encoding a core protein in which 40 amino acids are eliminated from the N-terminal region of the original core protein.

6. (Currently Amended) The ~~DNA vaccine~~ plasmid mixture as set forth in claim 1, wherein the encoded E2 protein contains a transmembrane domain of an E2 protein.

7. (Currently Amended) The ~~DNA vaccine~~ plasmid mixture as set forth in claim 1, wherein the first plasmid contains a base sequence represented by SEQ ID No 50.

8. (Currently Amended) The ~~DNA vaccine~~ plasmid mixture as set forth in claim 7, wherein the first plasmid is pGX10 gDsΔST (Accession No: KCCM 10415).

9. (Currently Amended) The ~~DNA vaccine~~ plasmid mixture as set forth in claim 1, wherein the second plasmid contains a base sequence represented by SEQ ID No 51.

10. (Currently Amended) The ~~DNA vaccine~~ plasmid mixture as set forth in claim 9, wherein the second plasmid is pGX10 NS34 (Accession No: KCCM 10417).

11. (Currently Amended) The ~~DNA vaccine~~ plasmid mixture as set forth in claim 1, wherein the third plasmid contains a base sequence represented by SEQ ID No 52.

12. (Currently Amended) The ~~DNA vaccine~~ plasmid mixture as set forth in claim 11, wherein the third plasmid is pGX10 NS5 (Accession No: KCCM 10416).

13. (Currently Amended) The ~~DNA vaccine~~ plasmid mixture as set forth in claim 1, wherein the first plasmid contains a base sequence represented by SEQ ID No 50, the second plasmid contains a base sequence represented by SEQ ID No 51, and the third plasmid contains a base sequence represented by SEQ ID No 52.

14. (Currently Amended) The ~~DNA vaccine~~ plasmid mixture as set forth in claim 13, wherein the first plasmid is pGX10 gDs ST (Accession No: KCCM 10415), the second plasmid is pGX10 NS34 (Accession No: KCCM 10417), and the third plasmid is pGX10 NS5 (Accession No: KCCM 10416).

15. (Currently Amended) The ~~DNA vaccine~~ plasmid mixture as set forth in claim 14, further comprising the pGX10 hIL-12m.

16. (Currently Amended) A recombinant adenovirus ~~vaccine~~ mixture comprising:

a first adenovirus ~~consisting essentially of~~ containing a DNA fragment encoding a structural protein composed of core, E1 and E2 proteins of hepatitis C virus, in which 35-40 amino acids are eliminated from N-terminal of the original core protein;

a second adenovirus ~~consisting essentially of~~ containing a DNA fragment encoding a non-structural protein composed of NS3 and NS4 of hepatitis C virus; and

a third adenovirus ~~consisting essentially of~~ containing a DNA fragment encoding NS5 of hepatitis C virus,

wherein the size of the DNA fragments contained in the first, second and third adenoviruses ranges from 2 to 6 kb.

17. (Currently Amended) The recombinant adenovirus ~~vaccine~~ mixture as set forth in claim 16, wherein the size of the DNA fragment contained in the first, second and third adenoviruses ranges from 2 to 4 kb.

18. (Canceled)

19. (Canceled)

20. (Currently Amended) The recombinant adenovirus ~~vaccine~~ mixture as set forth in claim 16, wherein the first adenovirus contains a DNA fragment encoding a core protein in which 40 amino acids are eliminated from N-terminal of the original core protein.

21. (Currently Amended) The recombinant adenovirus ~~vaccine~~ mixture as set forth in claim 16, wherein the E2 protein contains a transmembrane domain of an E2 protein.

22. (Currently Amended) The recombinant adenovirus ~~vaccine~~ mixture as set forth in claim 16, wherein the first adenovirus contains a base sequence represented by SEQ. ID. No 50.

23. (Currently Amended) The recombinant adenovirus ~~vaccine~~ mixture as set forth in claim 22, wherein the first adenovirus is rAd gDsΔST (Accession No: KCCM 10418).

24. (Currently Amended) The recombinant adenovirus ~~vaccine~~ mixture as set forth in claim 16, wherein the second adenovirus contains a base sequence represented by SEQ. ID. No 54.

25. (Currently Amended) The recombinant adenovirus ~~vaccine~~ mixture as set forth in claim 24, wherein the second adenovirus is rAd gDs NS34 (Accession No: KCCM 10420).

26. (Currently Amended) The recombinant adenovirus ~~vaccine~~ mixture as set forth in claim 16, wherein the third adenovirus contains a base sequence represented by SEQ. ID. No 52.

27. (Currently Amended) The recombinant adenovirus vaccine mixture as set forth in claim 26, wherein the third adenovirus is rAd NS5 (Accession No: KCCM 10419).

28. (Currently Amended) The recombinant adenovirus ~~vaccine~~ mixture as set forth in claim 16, wherein the first adenovirus contains a base sequence represented by SEQ. ID. No 50, the second adenovirus contains a base sequence represented by SEQ. ID. No 54, and the third adenovirus contains a base sequence represented by SEQ. ID. No 52.

29. (Currently Amended) The recombinant adenovirus ~~vaccine~~ mixture as set forth in claim 28, wherein the first adenovirus is rAd gDsΔST (Accession No: KCCM 10418), the second adenovirus is rAd gDs NS34 (Accession No: KCCM 10420), and the third adenovirus is rAd NS5 (Accession No: KCCM 10419).

30. (Withdrawn/Currently Amended) A method of enhancing protective immunity to hepatitis C virus comprising:

priming with the ~~DNA vaccine~~ plasmid mixture of claim 1;

boosting with a ~~recombinant adenovirus vaccine, wherein the~~ mixture of recombinant adenovirus ~~vaccine~~ that comprises:

a first adenovirus ~~consisting essentially of~~ containing a DNA fragment encoding a structural protein composed of core, E1 and E2 of hepatitis C virus, in which 35-40 amino acids are eliminated from N-terminal of the original core protein;

a second adenovirus ~~consisting essentially of~~ containing a DNA fragment encoding a non-structural protein composed of NS3 and NS4 of hepatitis C virus; and

a third adenovirus ~~consisting essentially of~~ containing a DNA fragment encoding NS5 of hepatitis C virus,

wherein the size of the DNA fragments contained in the first, second and third adenoviruses ranges from 2 to 6 kb.

31. (Withdrawn/Currently Amended) The method as set forth in claim 30, wherein the priming frequency of the ~~DNA vaccine~~ plasmid mixture is 4-5.

32. (Withdrawn/Currently Amended) The method as set forth in claim 31, wherein the priming frequency of the ~~DNA vaccine~~ plasmid mixture is 3.

33. (Withdrawn/Currently Amended) The method as set forth in claim 30, wherein boosting with the recombinant adenovirus ~~vaccine~~ mixture is conducted once after priming with the ~~DNA vaccine~~ plasmid mixture three times,

wherein the first adenovirus contains a base sequence represented by SEQ. ID. No 50, the second adenovirus contains a base sequence represented by SEQ. ID. No 54, and the third adenovirus contains a base sequence represented by SEQ. ID. No 52; and

wherein the first plasmid of the DNA vaccine contains a base sequence represented by SEQ ID No 50, the second plasmid of the DNA vaccine contains a base sequence represented by SEQ ID No 51, and the third plasmid of the DNA vaccine contains a base sequence represented by SEQ ID No 52.

34. (Withdrawn/Currently Amended) The method as set forth in claim 30, wherein CD4+ Th1 immune response is increased by boosting with the recombinant adenovirus ~~vaccine~~ mixture after priming with the ~~DNA vaccine~~ plasmid mixture.

35. (Withdrawn/Currently Amended) The method as set forth in claim [[30]] 34, wherein CD4+ Th1 immune response is increased by boosting with the recombinant adenovirus ~~vaccine~~ mixture once after priming with the ~~DNA vaccine~~ plasmid mixture three times,

wherein the first adenovirus contains a base sequence represented by SEQ. ID. No 50, the second adenovirus contains a base sequence represented by SEQ. ID. No 54, and the third adenovirus contains a base sequence represented by SEQ. ID. No 52; and

wherein the first plasmid of the DNA vaccine contains a base sequence represented by SEQ ID No 50, the second plasmid of the DNA vaccine contains a base sequence represented by SEQ ID No 51, and the third plasmid of the DNA vaccine contains a base sequence represented by SEQ ID No 52.

36. (Cancelled)

37. (Cancelled)

38. (Currently Amended) ~~A DNA vaccine~~ The plasmid mixture of claim 1, ~~comprising:~~

~~a first plasmid consisting essentially of a DNA fragment encoding a structural protein composed of core, E1 and E2 proteins of hepatitis C virus;~~

~~a second plasmid consisting essentially of a DNA fragment encoding a non-structural protein composed of NS3 and NS4 of hepatitis C virus; and~~

~~a third plasmid consisting essentially a DNA fragment encoding NS5 of hepatitis C virus,~~

~~wherein the size of the DNA fragments contained in the first, second and third plasmids ranges from 2 to 6 kb; and~~

wherein the ~~DNA vaccine~~ plasmid mixture enhances cytotoxic T lymphocyte response in a person immunized with the DNA vaccine.

39. (Currently Amended) [[A]] The recombinant adenovirus ~~vaccine~~ mixture of claim 16, ~~comprising:~~

~~a first adenovirus consisting essentially of a DNA fragment~~ encoding a structural ~~protein composed of core, E1 and E2 proteins~~ of hepatitis C virus;

~~a second adenovirus consisting essentially of a DNA fragment encoding a non-structural protein composed of NS3 and NS4 of hepatitis C virus; and~~

~~a third adenovirus consisting essentially of a DNA fragment encoding NS5 of hepatitis C virus,~~

~~wherein the size of the DNA fragments contained in the first, second and third adenoviruses ranges from 2 to 6 kb; and~~

wherein the recombinant adenovirus ~~vaccine~~ mixture enhances cytotoxic T lymphocyte response in a person immunized with the recombinant adenovirus vaccine.

40. (Withdrawn/Currently Amended) The method of enhancing protective immunity of claim 30, wherein the ~~DNA vaccine~~ plasmid mixture and the recombinant adenovirus mixture enhance cytotoxic T lymphocyte response in a person immunized with the DNA vaccine and the recombinant adenovirus vaccine.